

# LOUISIANA, CLIMATE CHANGE, AND THE CLEAN POWER PLAN

LDEQ CPP Listening Session

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# EXECUTIVE SUMMARY

## ► COAL POLLUTION

- The 32 Louisiana power plants = 53 million tons of carbon in 2012.
- The four (4) coal plants are just 13% of the number of power plants, but they accounted for 50% of the carbon pollution (26 million tons).
- The costs of inaction are great and must be avoided.

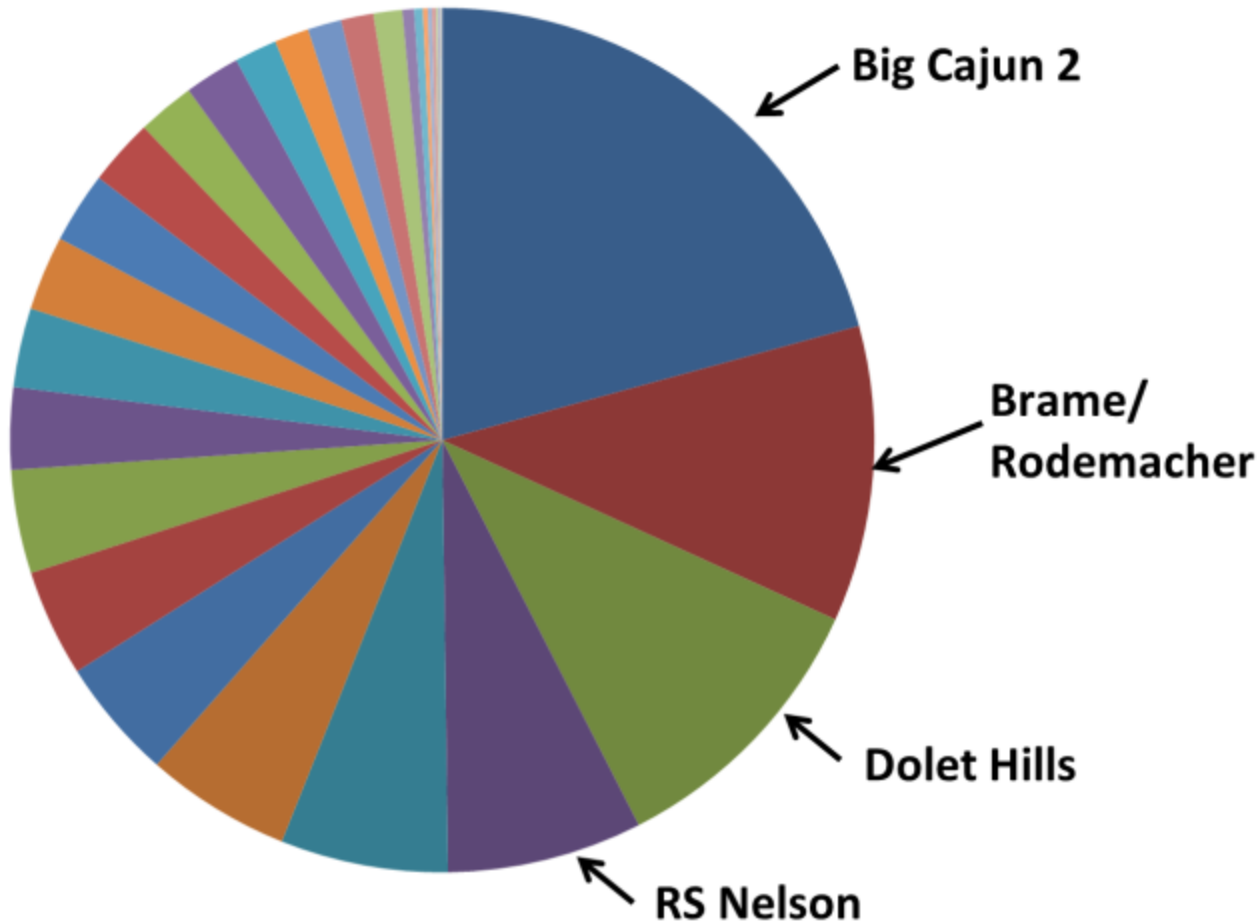
## ► RENEWABLE ENERGY

- Affordable now: recent PPA's in neighboring states: wind at 2 c/kwh, solar at 4 c/kwh

## ► COAL TO CLEAN ENERGY

- EE and RE can reduce \$450M/annual costs to import out-of-state coal to La.
  - Keep \$ in-state. Create economic opportunity closer to home.
- Replacing coal with clean energy provides for straightforward CPP compliance.

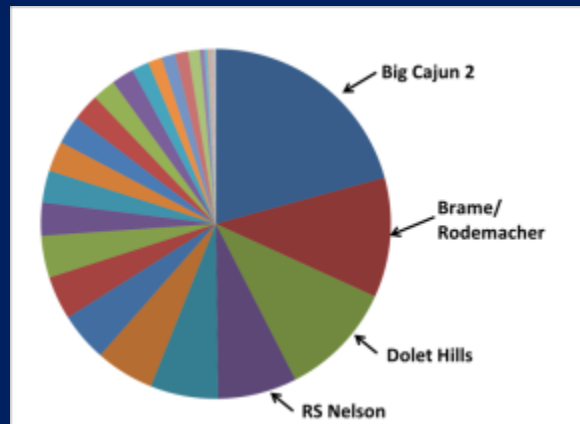
# LOUISIANA – LARGEST 4 SOURCES ARE COAL PLANTS



*Coal plants account for 50% of LA power plant carbon emissions.*

# LOUISIANA – LARGEST 4 SOURCES ARE COAL PLANTS

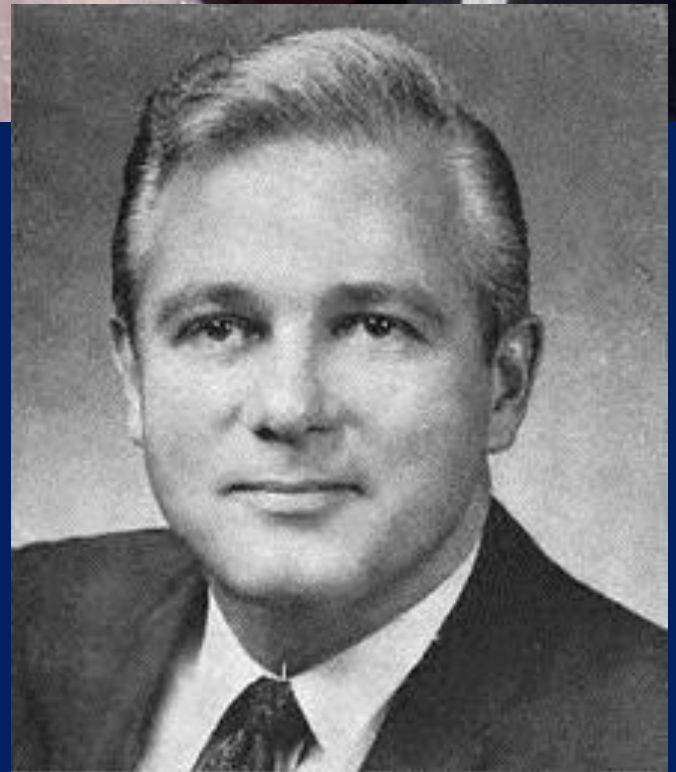
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# CLIMATE CHANGE & COSTS OF INACTION

- ▶ Sea level rise is an existential threat to coastal Louisiana.
- ▶ Climate already costing U.S. billions. For example (per year):
  - ▶ \$20B Congressional Disaster Appropriations
  - ▶ \$10B National Flood Insurance Program
  - ▶ \$4B to 20B Federal Crop Insurance Program
- ▶ \$300 per capita in U.S. for 2012 federal weather/climate payments
- ▶ In addition to federal gov't costs, climate and weather disasters in 2012 cost the American economy more than \$100 billion.
- ▶ Carbon rule climate & health benefits worth an estimated \$55- \$93 billion per yr in 2030. This includes avoiding 2,700-6,600 premature deaths & 140,000 -150,000 asthma attacks in children

1978



**1978**

**Construction begins at NRG's Big Cajun II - first coal fired plant in Louisiana**





2016





**2016**

**NRG's Big Cajun II still burning coal ... after 35 years**



# GRADUALLY PHASING OUT COAL PLANTS AND REPLACE WITH CLEAN ENERGY = CPP SUCCESS

Facility and Unit No.	On-Line Year	40 years of Operation	2012 CO2 Emissions (TPY)	Phase Out and Replace with 100% Clean Energy RE & EE by 2025	Phase Out and Replace with 75% Clean Energy / No more than 25% NG by 2025	Phase Out and Replace with 50% Clean Energy / No more than 50% NG by 2025
Big Cajun 2-1	1981	2021	3798680	-3798680	-3323845	-2849010
RS Nelson 6	1982	2022	3887422	-3887422	-3401494	-2915566
<del>Big Cajun 2-2</del>	<del>1982</del>	<del>2022</del>	3647696	-3647696	-3191734	-2735772
Brame 2	1982	2022	3021695	-3021695	-2643983	-2266271
Big Cajun 2-3	1983	2023	3588545	-3588545	-3139977	-2691409
Dolet Hills	1986	2026	5678438	-5678438	-4968633	-4258829
Brame 3-42430	2010	2050	1351213	--	--	--
Brame 3-42431	2010	2050	1078256	--	--	--
TOTAL REDUCTION				-23,622,476	-20,669,667	-17,716,857
STATE CPP TARGET				-15,961,743	-15,961,743	-15,961,743
TOTAL REDUCTION (%)				-44	-39	-33
STATE CPP TARGET (%)				-30	-30	-30

# CREATING AN INCLUSIVE CPP PROCESS

1. We strongly support the LDEQ creating a state III(d) plan for the Clean Power Plan.
2. Before it gets started, LDEQ should empanel a broad stakeholder roundtable to get input on what the plan should include.
3. The stakeholders should include coastal residents and organizations, environmental justice advocates, and regional transmission authorities.
4. Input from the stakeholders should inform the state proposal.
5. The state plan should be officially proposed in 12 months (March 2017), and finalized in 18 months (September 2017).

# COAL VS RENEWABLE ENERGY

1. Louisiana spends \$450 million/year (2012) to import WY coal.
2. In the 15 years from 2015 through 2030, that's roughly \$6.8 billion from Louisiana families and businesses leaving the state.
3. Louisiana ranks #15 out of all the states with \$98 annual per capita spending on importing coal from other states.
4. **Public Service Oklahoma/AEP, 2014 Wind Contracts of 600 MW –**
  - ▶ **With these long-term [PPAs] we're adding a significant amount of wind energy, bringing more diversity to our fuel mix, and doing so at a price that will provide substantial savings for our customers - Stuart Solomon, PSO/AEP President and CEO**

# COAL VS RENEWABLE ENERGY

## I. Examples of low cost Renewable Energy

Recent PPA's in neighboring states for renewable energy:

- a. Xcel/SPS Wind with Next Era Mammoth – 1.9 cents/kwh
- b. Xcel/SPS Wind with Next Era Palo Duro – 2.1 c/kwh
- c. Xcel/SPS Wind with Infinity Roosevelt – 2.0 c/kwh
- d. Austin Energy Solar with Recurrent – 4.9 c/kwh



# CONCLUSIONS

1. Four large LA coal plants are responsible for 50% of the state's power plant carbon emissions.
2. Costs of inaction on climate change are great with Americans already spending \$300 per person per year (\$1200 per family of 4) on federal disaster programs.
3. Louisiana ranks near the top in terms of per capita spending to import coal from other states, at nearly \$100 per person per year (\$400 per year for a family of 4) to bring in out of state coal.
4. Gradually phasing out coal at 4 plants and replacing coal with clean energy provides straightforward path to compliance. – This isn't hard.
5. LDEQ should create a robust and inclusive CPP stakeholder roundtable and hold regular monthly meetings to solicit input for an eventual state CPP plan. An official state proposal should be published by March 2017 and finalized by October 2017.

Thanks.